IN THE CLAIMS

Please amend the claims as follows:

Claims 1-20 (Canceled).


Claim 21 (Currently Amended): A radio communication method by a radio communication system in which output signals are generated from a plurality of information signals and then transmitted to a system of a communication partner from a plurality of antennas, the method comprising:

receiving control information transmitted by the system of the communication partner;

determining, based on the received control information, a first weight corresponding to the plurality of antennas for [[one]] a first signal of the plurality of information signals modulated by a first modulation scheme and encoded by a first encoding method, and a second weight corresponding to the plurality of antennas for ~~another one~~ a second signal of the plurality of information signals modulated by a second modulation scheme and encoded by a second encoding method;

generating a first operation result by multiplying the ~~one of the plurality of information signals~~ first signal by the first weight, and generating a second operation result by multiplying the ~~another one of the plurality of information signals~~ second signal by the second weight; and

generating, based on the first operation result and the second operation result, a plurality of the output signals each corresponding to one of the plurality of antennas, and transmitting the plurality of the output signals to the system of the communication partner,

wherein the control information comprises weight information on the first and second weights and a transmission format information, on modulation scheme and encoding method,

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corresponding to the weight information, the modulation scheme and encoding method corresponding to the transmission format information being determined based on the signal quality calculated on the assumption that the output signals of the plurality of antennas are generated utilizing the weights corresponding to the weight information and the output signals are transmitted simultaneously.

Claim 22 (Currently Amended): The radio communication method according to Claim 21, wherein the control information further comprises information to select the first and second weights from ~~, including~~ a number of weight candidates greater than a number of the antennas.

Claim 23 (Currently Amended): A radio communication system in which output signals are generated from a plurality of information signals and then transmitted to a system of a communication partner from a plurality of antennas, comprising:

a reception device for receiving control information transmitted by the system of the communication partner;

a weight determining device to determine, based on the received control information, a first weight corresponding to the plurality of antennas for [[one]] <u>a first signal</u> of the plurality of information signals modulated by a first modulation scheme and encoded by a first encoding method, and a second weight corresponding to the plurality of antennas for ~~another one~~ <u>a second signal</u> of the plurality of information signals modulated by a second modulation scheme and encoded by a second encoding method;

an operation device to generate a first operation result by multiplying the ~~one of the plurality of information signals~~ <u>first signal</u> by the first weight, and to generate a second

operation result by multiplying the ~~another one of the plurality of information signals~~ second

signal by the second weight; and

a transmission device to generate, based on the first operation result and the second

operation result, a plurality of the output signals each corresponding to one of the plurality of

antennas, and to transmit the plurality of the output signals to the system of the

communication partner,

wherein the control information comprises weight information on the first and second

weights and a transmission format information, on modulation scheme and encoding method,

corresponding to the weight information, the modulation scheme and encoding method

corresponding to the transmission format information being determined based on the signal

quality calculated on the assumption that the output signals of the plurality of antennas are

generated utilizing the weights corresponding to the weight information and the output

signals are transmitted simultaneously.

Claim 24 (Currently Amended): The radio communication system according to Claim

23, wherein the control information further comprises information to select the first and

second weights from ~~, including~~ a number of weight candidates greater than a number of the

antennas.

Claim 25 (New): The radio communication method according to Claim 21, wherein

the first and second signals are selected, by the system of the communication partner,

from the plurality of information signals to satisfy a minimization of a relationship, $|h_{n1} \cdot h_{n2}|$,

$h_{n1}$ is an estimated propagation vector for the first signal based on a first pilot signal

for the first signal,

$h_{n2}$ is an estimated propagation vector for the second signal based on a second pilot signal for the second signal, and

the control information received from the system of the communication partner identifies the first and second signals which are selected by the system of the communication partner, the method further comprising:

transmitting the first and second signals, simultaneously, to the system of the communication partner in response to receiving the control information identifying the first and second signals as being selected.

Claim 26 (New): The radio communication method according to Claim 21, wherein

an output signal to interference-plus-noise ratio (SINR) for each of the plurality of information signals is calculated based on pilot signals by the system of the communication partner,

each of the plurality of information signals is determined to be an acceptable signal based on having an SINR greater than or equal to a predetermined value, and

the first and second signals are selected, by the communication partner, from the plurality of information signals to reflect a combination of information signals which maximize a number of acceptable signals, and

the control information received from the system of the communication partner identifies the first and second signals which are selected by the system of the communication partner, the method further comprising:

transmitting the first and second signals, simultaneously, to the system of the communication partner in response to receiving the control information identifying the first and second signals as being selected.